AMENDMENTS TO THE CLAIMS:

1. (Original) A storage medium, comprising:

a metallic underlayer;

a ferroelectric data layer over said metallic underlayer; and

a layer over said ferroelectric data layer having a charge migration rate faster than a charge migration rate of said ferroelectric data layer.

2. (Original) The storage medium of claim 1, wherein said layer over said ferroelectric data layer comprises a conducting layer.

3. (Original) The storage medium of claim 1, wherein said layer over said ferroelectric data layer directly contacts a top surface of said ferroelectric data layer.

4. (Original) The storage medium of claim 2, wherein said conducting layer comprises at least one one of:

silicon; and

a doped perovskite.

5. (Original) The storage medium of claim 1, wherein said charge migration time is less than approximately 10^{-10} second.

6. (Original) The storage medium of claim 2, wherein a thickness of said conducting layer is within a range of approximately 5 Å to approximately 25 Å.

7. (Original) The storage medium of claim 1, wherein said metallic underlayer comprises $SrRuO_3$.

8. (Original) The storage medium of claim 1, wherein said ferroelectric data layer comprises at least one of:

PZT ($Pb(Zr_x\ Ti_{1-x})O_3$);

SBT ($SrBi_2Ta_2O_9$);

$BaMgF_4$;

STN ($Sr_2(Ta_{1-x}\ Nb_x)_2O_7$); and

NFM (COVA).

9. (Original) The storage medium of claim 5, wherein a thickness of said conducting layer is approximately 15 Å.

10. (Currently amended-withdrawn) A memory apparatus, comprising

a support mechanism to support and move a ferroelectric storage medium, said ferroelectric storage medium comprising a metallic underlayer, a ferroelectric data layer over said metallic underlayer, and a conducting layer over said ferroelectric layer having a charge migration rate faster than a charge migration rate of said ferroelectric data layer.

11. (Withdrawn) The memory apparatus of claim 10, further comprising:

a read/write head for accessing said ferroelectric storage medium.

12. (Withdrawn) The memory apparatus of claim 11, wherein said read/write head includes an electrometric sensor for reading information from said ferroelectric storage medium.

13. (Withdrawn) The memory apparatus of claim 12, wherein said electrometric sensor comprises:

an open-gate finFET.

14. (Withdrawn) The memory apparatus of claim 12, wherein said electrometric sensor comprises a plurality of electrometric sensing elements,

said plurality of electrometric sensing elements arranged linearly in at least one dimension.

15. (Withdrawn) The memory apparatus of claim 14, wherein said plurality of electrometric sensing elements are arranged in an x-axis dimension and in a y-axis dimension.

16. (Original) A method of manufacturing a storage medium, said method comprising:

applying a layer of ferroelectric material over a metallic underlayer; and

applying a layer of conducting material over said ferroelectric layer.

17. (Original) The method of claim 16, wherein said conducting layer comprises at least one of:

silicon; and

a doped perovskite.

18. (Original) The method of claim 16, wherein a thickness of said conducting layer is within a range of approximately 5 Å to approximately 25 Å.

19. (Original) The method of claim 18, wherein a thickness of said conducting layer is approximately 15 Å.

20. (Original) The method of claim 16, wherein said metallic underlayer comprises $SrRuO_3$.